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NOTICE OF ALLOWANCE AND FEE(S) DUE

7590 05/01/2008

Blaney Harper Jones Day 51 Louisiana Avenue, NW Washington, DC 20001-2113 EXAMINER

LOVEL, KIMBERLY M

PAPER NUMBER

ART UNIT

DATE MAILED: 05/01/2008

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/713,592 | 11/14/2003 | James G. Shanahan | 940630-010023 | 2005 |

TITLE OF INVENTION: METHOD AND APPARATUS FOR DOCUMENT FILTERING USING ENSEMBLE FILTERS

| APPLN. TYPE | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE |
|----------------|--------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | NO | \$1440 | \$300 | \$0 | \$1740 | 08/01/2008 |

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where

| appropriate. All further indicated unless corrects maintenance fee notifica | correspondence includir ed below or directed oth | of transmitting the 1330 ig the Patent, advance or ierwise in Block 1, by (a | rders and notification of n a) specifying a new corres | naintenance fees w pondence address; | ill be and/or | mailed to the current (b) indicating a sepa | correspondence address as arate "FEE ADDRESS" for |
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| Blaney Harper Jones Day 51 Louisiana Av Washington, DC | | /2008 | I her State addr trans | solve cartify that this | e Good | of Mailing or Trans s) Transmittal is being ficient postage for firs ISSUE FEE address 1) 273-2885, on the d | mission g deposited with the United st class mail in an envelope above, or being facsimile ate indicated below. |
| washington, DC | . 20001-2113 | | | | | | (Depositor's name) |
| | | | _ | | | | (Signature) |
| | | | | | | | (Date) |
| APPLICATION NO. | FILING DATE | | FIRST NAMED INVENTOR | | ATTO | RNEY DOCKET NO. | CONFIRMATION NO. |
| 10/713,592 TITLE OF INVENTION | 11/14/2003 : METHOD AND APP | RATUS FOR DOCUME | James G. Shanahan ENT FILTERING USING I | ENSEMBLE FILTE | | 40630-010023 | 2005 |
| | | | | | | | |
| APPLN. TYPE | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE | FEE | TOTAL FEE(S) DUE | DATE DUE |
| nonprovisional | NO | \$1440 | \$300 | \$0 | | \$1740 | 08/01/2008 |
| EXAM | IINER | ART UNIT | CLASS-SUBCLASS | | | | |
| LOVEL, KE | MBERLY M | 2167 | 707-005000 | | | | |
| 1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.53). Change of correspondence address (or Change of Correspondence Address form PT0/SB/12) anached. The Address of The Change of Correspondence Address "Indication form PT0/SB/12", Rev 0.302 or more recent) attached. Use of a Customer Namber is required. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON | | | For printing on the p (1) the names of up to or agents OR, alternativ (2) the name of a single registered attorney or a 2 registered patent attoo listed, no name will be THE PATENT (print or ter- | 3 registered patent vely, e firm (having as a gent) and the name meys or agents. If r printed, | memb | er a 2 | |
| PLEASE NOTE: Uni recordation as set fort (A) NAME OF ASSI | less an assignee is ident h in 37 CFR 3.11. Comp GNEE | | data will appear on the pa T a substitute for filing an (B) RESIDENCE: (CITY | atent. If an assigne assignment. and STATE OR C | OUNT | 'RY) | ocument has been filed for |
| 4a. The following fee(s) Issue Fee Publication Fee (N | vo small entity discount p | | b. Payment of Fee(s): (Plea A check is enclosed. Payment by credit can The Director is hereby overpayment, to Depo | d. Form PTO-2038 | is atta | ched. | shown above) ficiency, or credit any n extra copy of this form). |
| - 11 | s SMALL ENTITY state | is. See 37 CFR 1.27. | b. Applicant is no long | | | | |
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| Authorized Signature | | | | Date | | | |
| Typed or printed nam | e | | | Registration N | o | | |
| This collection of inform an application. Confiden submitting the complete this form and/or suggests Box 1450, Alexandria, V Alexandria, Virginia 223 | nation is required by 37 C tiality is governed by 35 d application form to the ions for reducing this but 'irginia 22313-1450. DC k13-1450. | FR 1.311. The informatic U.S.C. 122 and 37 CFR USPTO. Time will vary den, should be sent to the ONOT SEND FEES OR (| on is required to obtain or r 1.14. This collection is est depending upon the indiv e Chief Information Office COMPLETED FORMS TO | etain a benefit by the imated to take 12 n idual case. Any con r, U.S. Patent and THIS ADDRESS. | ne publ ninutes nment Fraden SENI | ic which is to file (and to complete, includir s on the amount of ti- nark Office, U.S. Dep D TO: Commissioner | by the USPTO to process) g gathering, preparing, and me you require to complete artment of Commerce, P.O. for Patents, P.O. Box 1450, |

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PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.



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| 75 | 90 05/01/2008 | | EXAM | UNER | |
| Blaney Harper | | | LOVEL, KIMBERLY M | | |
| Jones Day | | | ART UNIT | PAPER NUMBER | |
| 51 Louisiana Avenue, NW Washington, DC 20001-2113 | | | 2167 DATE MAILED: 05/01/200 | 8 | |

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 482 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 482 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

| Application No. | Applicant(s) |
|-----------------|----------------|
| 10/713,592 | SHANAHAN ET AL |
| Examiner | Art Unit |
| KIMBERLY LOVEL | 2167 |

| The MAILING DATE of this communication appears on the cover sheet with the correspondence address |
|--|
| All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included |
| herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS |
| NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative |
| of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. |

- This communication is responsive to the Amendment filed 25 January 2008.
- The allowed claim(s) is/are 1-8, 16 and 17 (renumbered to 1-10).
- 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) \square All b) ☐ Some* c) ☐ None of the:
 - 1. T Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No.
 - 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6.

DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- 1. Notice of References Cited (PTO-892)
- 2. Notice of Draftperson's Patent Drawing Review (PTO-948)
- Information Disclosure Statements (PTO/SB/08). Paper No./Mail Date
- 4. T Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 5. Notice of Informal Patent Application
- Interview Summary (PTO-413), Paper No./Mail Date 7. T Examiner's Amendment/Comment
- Examiner's Statement of Reasons for Allowance
- 9. Other _____.

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DETAILED ACTION

1. This action is responsive to Applicants' Amendment filed 25 January 2008.

Claims 1-8, 16 and 17 are pending in this application. In the Amendment filed 25
January 2008. claims 9-15 and 18-23 are cancelled.

 After a thorough search and examination of the present application and in light of the prior art made of record and Applicants' Amendments and Remarks filed 25 January 2008, claims 1-8, 16 and 17 (renumbered as 1-10) are allowed.

Reasons for Allowance

4. The following is an examiner's statement of reasons for allowance:

In the Examiner's Office Action for Non-Final Rejection dated 23 October 2007, claims 1-8, 16 and 17 were rejected under 35 USC 103 based primarily on US PGPub 2006/0089924 to Raskutti et al and US Patent No 5,867,799 to Lang et al.

In the remarks filed 25 January 2008, in response to an Office Action dated 23

October 2007, Applicant distinguished the cited prior art, (Raskutti et al., US PGPub 2006/0089924; and Lang et al., US Patent No 5,867,799) by stating on pages 12-3 of the Remarks dated 25 January 2008, "One of the steps of creating each sub-filter is calculating a score threshold for the set of features from the second subset of training documents. ...

As stated, the disclosure of paragraph [0075] describes determining a numerical score for a message. This is very different from the threshold score of claim 1 which is a bar value that allows documents which score above the threshold value to be accepted and those that score below the threshold value to be rejected." After consideration of these arguments

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and further searching of the prior art, the arguments provided are persuasive.

Also, after careful consideration of the prior art of record and further searching for prior art, it is noted that the prior art fails to fairly teach or suggest the claimed subject matter in which documents are filtered effectively and simultaneously by dividing the documents into subsets such that profile features of one subset are extracted to calculate the threshold of document selection criteria for the same profile features of another subset of documents, which is very distinct from a conventional method of extracting profile features from a document (or document subset) and then calculating threshold of document selection criteria by applying the calculation to exactly the same document (or document subset). The above described subject matter is expressed in the limitation language of "wherein creating each sub-filter comprises the steps of selecting a first subset and a second subset from a set of training documents, extracting a set of features from the first subset, and calculating a score threshold from the set of features from the second subset" in the manner disclosed in each of the independent claims.

A thorough search for prior art in the EAST database and on domains (NPL-ACM, NPL-IEEE and Google.com) has been conducted. The prior art searched and investigated in the database and domains does not fairly teach or suggest the claimed subject matter as described above and reflected by the combined elements in each of the independent claims 1 and 8.

The dependent claims 2-7, 16 and 17 depending on independent claims 1 and 8, respectively are also distinct from the prior art for the same reasons.

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5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance." Application/Control Number: 10/713,592

Art Unit: 2167

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KIMBERLY LOVEL whose telephone number is (571)272-2750. The examiner can normally be reached on 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on (571) 272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kimberly Lovel Examiner Art Unit 2167

23 April 2008 kml /klu/ Application/Control Number: 10/713,592

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/John R. Cottingham/ Supervisory Patent Examiner, Art Unit 2167